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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,959	12/21/2000	Mareike Katharine Klee	PHD 99,195	2130

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

TAKAOKA, DEAN O

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,959

Applicant(s)

LOBL ET AL.

Examiner

Dean O Takaoka

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 20, 2003, paper no. 16.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 8,13 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 August 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:

- 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4 – 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ella (U.S. Patent No. 5,910,756) for reasons of record contained in the office action dated February 10, 2003 (paper no. 13).

Claim 1:

Adds the wording "wherein both the bandpass filter and the notch filter are thin film filters, and the notch filter does not generate a passband" and deletes [for generating a passband] and [exclusively for producing a notch at one or both edges of said passband].

It is the position of the Examiner that the addition of the wording "wherein both the bandpass filter and the notch filter are thin film filters" is anticipated by the applied prior art of Ella. Ella clearly shows the BAR/SCR ladder filter, comprising notches and a bandpass (discussed previously in the reasons for rejection of claim 1 – see the previous office action dated February 10, 2003), where the BAR/SCR of the ladder filter

The further added limitation "and the notch filter does not generate a passband" is also anticipated by Ella. The function of a notch filter is to eliminate, e.g. notch, one frequency and pass other frequencies as is well-known in the art. If it is to be considered that the passing of other frequencies (sans notched frequency) does not constitute a passband, as newly claimed by the Applicant's amendment, then the ladder

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filter of Ella continues to meet the newly added limitations. The series and shunt BAR's of Ella produces low pass and high pass notch filtering as is well-known in the art. The combination of series and shunt BAR's thus produce attenuation of the band pass filter comprising the SCR, with notches occurring outside the passband (N2 and N1 – Fig. 10b). It is therefore the opinion of the Examiner that the series and shunt BAR's, such as shown by Ella, would be notch filters which do not generate a passband, where it would be inherent that any notch would not produce a passband, thus the rejections are maintained by the Examiner.

Response to Arguments

Applicant's arguments filed May 20, 2003 by amendment (amendment D – paper no. 16) have been fully considered but they are not persuasive.

It is argued that Ella does not anticipate the distinguishing feature of the present invention, e.g. that the notch filter can be designed independently without interference of the bandpass filter. While the Examiner agrees that the invention of Ella is not identical, it is asserted by the Examiner that claim 1 is not patentably distinct from the prior art of Ella.

It is argued that the present invention utilizes the notch filter “exclusively for generating a notch” unlike Ella “which generate the notches above and below the passband, also function as a bandpass filter for generating a frequency response at the required center frequency”. Clearly this is the intention of the present invention while the notches of Ella clearly function also as the bandpass filtering.

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The Examiner believes the function of the notch is a matter of semantics where any notch, e.g. LPF, HPF, or trap filter (i.e. one frequency) would be anticipated by each other, in that each type would comprise a "notch" at a given frequency. As is well-known in the art, the function of the notch is to filter or attenuate a frequency. In the case of a trap filter, it attenuates for example a single frequency while allowing all other frequencies to pass. Seen another way, the trap creates both low pass filtering and high pass filtering. Dual trap filters, even without an interposed dedicated single pole bandpass filter would by themselves create a bandpass defined as the frequencies occurring between each notched frequency.

The prior art of Ella, while showing notches on both the high and low frequency side of the bandpass filter function in the same manner as a dual trap. It can also be said that a single shunt or series resonator (e.g. BAR) would create a HPF or LPF respectively, as is also well-known in the art and discussed in the Applicant's arguments. Thus, if it is to be considered that the passing of other frequencies (sans notched frequency) does not constitute a passband, as newly claimed by the Applicant's amendment, then the ladder filter of Ella continues to meet the newly added limitations, discussed in the reasons for rejection of claim 1 above, because any series or shunt BAR, in combination with the SCF would comprise the notched LPF or HPF, thus continuing to anticipate the limitations of claim 1 and the dependent claims therein.

Allowable Subject Matter

Claims 8, 13 and 14 are allowed.

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Ella shows the thin film ladder filter comprising first and second electrodes (24, 26), a piezoelectric layer (30), carrier layer (e.g. sacrificial layer 39), and substrate (36) but does not show the second electrode resting on the carrier layer and the first electrode fastened on the substrate with the carrier layer removed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean O Takaoka whose telephone number is (703) 305-6242. The examiner can normally be reached on 8:30a - 5:00p Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



June 20, 2005

Robert Pascal
Examiner
U.S. Patent and Trademark Office